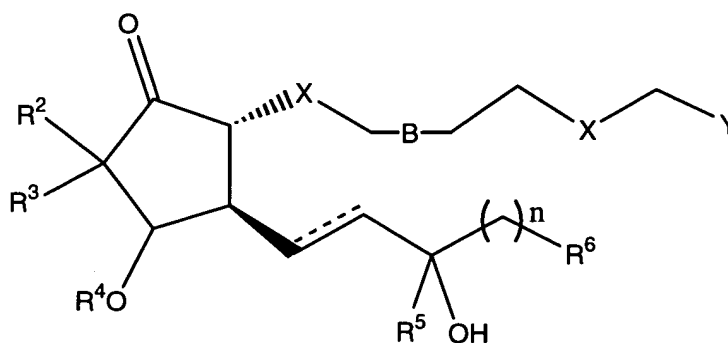


AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of treating ocular hypertension or glaucoma which comprises administering to an animal having ocular hypertension or glaucoma a therapeutically effective amount of a compound represented by the general Formula I:



Formula I

- 10 wherein the dashed lines indicate the presence or absence of a bond, the hatched wedges indicate the α (down) configuration, and the solid triangles indicate the β (up) configuration;
- B is a single, double, or triple covalent bond;
- 15 n is 0-6;
- X is CH₂, S or O;
- Y is CONHCH₂CH₂OH or CON(CH₂CH₂OH)₂,
- ~~R is H, C₁₋₆ alkyl or C₂₋₆ alkenyl;~~
- 20 R² and R³ are C₁₋₆ linear alkyl which may be the same or different, and may be bonded to each other such that they form a ring incorporating the carbon to which they are commonly attached;
- R⁴ is hydrogen, R, C(=O)R, or any group that is easily removed under physiological conditions such that R⁴ is effectively hydrogen;
- R is H, C₁₋₆ alkyl or C₂₋₆ alkenyl;

R⁵ is hydrogen or R; and

R⁶ is

- i) hydrogen;
 - ii) a linear or branched hydrocarbon containing between 1 and 8 carbon atoms, which may contain one or more double or triple bonds, or oxygen or halogen derivatives of said hydrocarbon, wherein 1-3 carbon or hydrogen atoms may be substituted by O or a halogen; or
 - iii) aryloxy, heteroaryloxy, C₃₋₈ cycloalkyloxy, C₃₋₈ cycloalkyl, C₆₋₁₀ aryl or C₃₋₁₀ heteroaryl, wherein one or more carbons is substituted with N, O, or S; and which may contain one or more substituents selected from the group consisting of halogen, trihalomethyl, cyano, nitro, amino, hydroxy, C₆₋₁₀ aryl, C₃₋₁₀ heteroaryl, aryloxy, heteroaryloxy, C₁₋₆ alkyl, OR, SR, and SO₂R.
2. (Original) A method of treating ocular hypertension or glaucoma which comprises administering to an animal having ocular hypertension or glaucoma a therapeutically effective amount of a compound selected from the group consisting of
- (3-((1*R*,4*S*,5*S*)-5-(3-chloro-benzo[*b*]thiophen-2-yl)-3-hydroxy-pent-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentylsulfanyl)-propylsulfanyl)-acetic acid methyl ester (**21**, **22**);
- (3-((1*R*,4*S*,5*S*)-5-(3-chloro-benzo[*b*]thiophen-2-yl)-3-hydroxy-pent-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentylsulfanyl)-propylsulfanyl)-acetic acid (**23**, **24**);
- (*Z*)-7-((1*R*,4*S*,5*R*)-5-[(*E*)-5-(3-chloro-benzo[*b*]thiophene-2-yl)-3-hydroxy-pent-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl)-hept-5-ynoic acid methyl ester (**34**, **35**);
- (*Z*)-7-((1*R*,4*S*,5*R*)-5-[(*E*)-5-(3-chloro-benzo[*b*]thiophene-2-yl)-3-hydroxy-pent-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl)-hept-5-ynoic acid (**36**, **37**);
- (*Z*)-7-((1*R*,4*S*,5*R*)-5-[(*E*)-5-(3-chloro-benzo[*b*]thiophene-2-yl)-3-hydroxy-pent-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl)-hept-5-enoic acid methyl ester (**38**, **39**);
- (*Z*)-7-((1*R*,4*S*,5*R*)-5-[(*E*)-5-(3-chloro-benzo[*b*]thiophene-2-yl)-3-hydroxy-pent-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl)-hept-5-enoic acid (**40**, **41**);
- (*Z*)-7-[(1*R*,4*S*,5*R*)-4-Hydroxy-5-((*E*)-3-hydroxy-5-phenyl-pent-1-enyl)-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid methyl ester (**50**, **51**)

(Z)-7-[(1R,4S,5R)-4-Hydroxy-5-((E)-3-hydroxy-5-phenyl-pent-1-enyl)-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid (**52,53**)

(Z)-7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid (**54,55**)

5 7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-heptanoic acid (**56,57**)

(Z)-7-[(1R,4S,5R)-5-(4-Benzo[b]thiophen-2-yl-3-hydroxy-butyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid (**58,59**)

10 (Z)-7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid ethylamide (**60,61**)

(Z)-7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid diethylamide (**62,63**)

(Z)-7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid (2-hydroxy-ethyl)-amide (**64,65**)

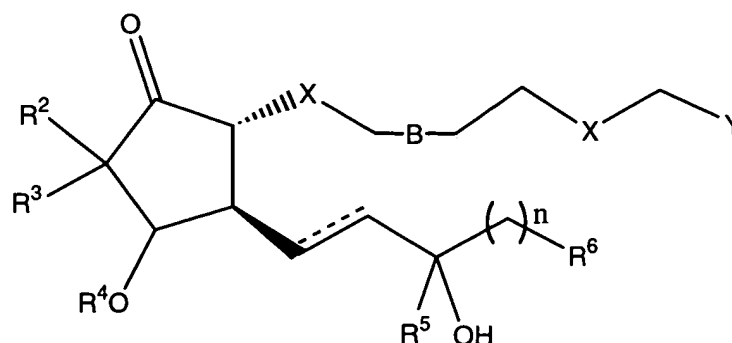
15 (3S,4R,5R)-4-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-3-hydroxy-2,2-dimethyl-5-[(Z)-6-(1-H-tetrazol-5-yl)-hex-2-enyl]-cyclopentanone (**66,67**) (Z)-7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid amide (**68,69**)

20 (Z)-7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid methyl ester (**70,71**)

7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-ynoic acid methyl ester (**72,73**)

7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-ynoic acid (**74,75**).

25 3. (Original) A compound represented by Formula I:

**Formula I**

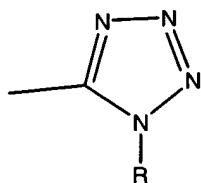
wherein the dashed lines indicate the presence or absence of a bond, the hatched wedges indicate the α (down) configuration, and the solid triangles indicate the β (up) configuration;

B is a single, double, or triple covalent bond;

n is 0-6;

X is CH₂, S or O;

- 10 Y is any pharmaceutically acceptable salt of CO₂H, or CO₂R, CONR₂, CONHCH₂CH₂OH, CON(CH₂CH₂OH)₂, CH₂OR, P(O)(OR)₂, CONRSO₂R, SONR₂, or



R is H, C₁₋₆ alkyl or C₂₋₆ alkenyl;

- 15 R² and R³ are C₁₋₆ linear alkyl which may be the same or different, and may be bonded to each other such that they form a ring incorporating the carbon to which they are commonly attached;

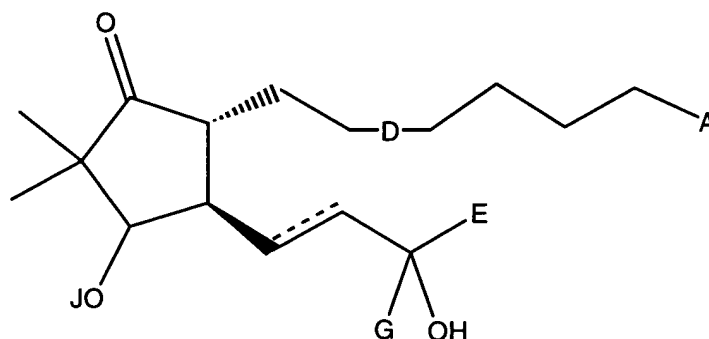
R⁴ is hydrogen, R, C(=O)R, or any group that is easily removed under physiological conditions such that R⁴ is effectively hydrogen;

R⁵ is hydrogen or R;

- 20 R⁶ is

i) hydrogen;

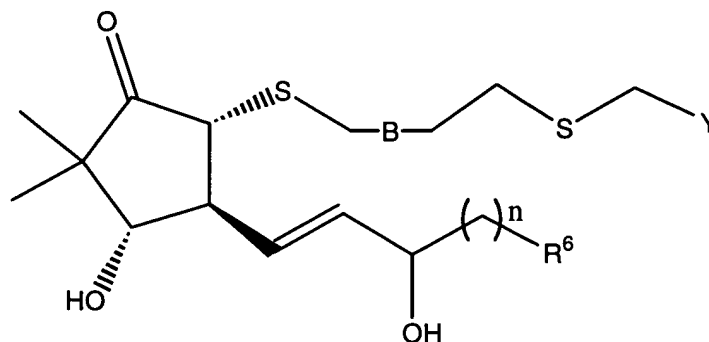
- ii) a linear or branched hydrocarbon containing between 1 and 8 carbon atoms, which may contain one or more double or triple bonds, or oxygen or halogen derivatives of said hydrocarbon, wherein 1-3 carbon or hydrogen atoms may be substituted by O or a halogen; or
- 5 iii) aryloxy, heteroaryloxy, C₃₋₈ cycloalkyloxy, C₃₋₈ cycloalkyl, C₆₋₁₀ aryl or C₃₋₁₀ heteroaryl, wherein one or more carbons is substituted with N, O, or S; and which may contain one or more substituents selected from the group consisting of halogen, trihalomethyl, cyano, nitro, amino, hydroxy, C₆₋₁₀ aryl, C₃₋₁₀ heteroaryl, aryloxy, heteroaryloxy, C₁₋₆ alkyl, OR, SR, and SO₂R; and
- 10 the compound of Formula I is not a compound of Formula II



Formula II

- wherein A is CO₂H, CO₂Me, or CO₂Et;
- D is a single, double, or triple covalent bond;
- 15 E is a linear, branched, or cycloalkyl chain of 3 to 7 carbons, trifluoromethylbutyl, hydroxylalkyl, or CH₂R⁷ wherein R⁷ is phenyl, cyclopentyl, phenoxy, chlorophenoxy, propoxy, or -CH₂SCH₂CH₃;
- J is hydrogen, R, C(=O)R, or any group that is easily removed under physiological conditions such that R⁴ is effectively hydrogen; and
- 20 G is H or CH₃.
4. (Currently Amended) The compound of claim 48 3 wherein A is CO₂R⁸, wherein R⁸ is any linear, branched, or cyclic alkyl group having from 3 to 6 carbons.

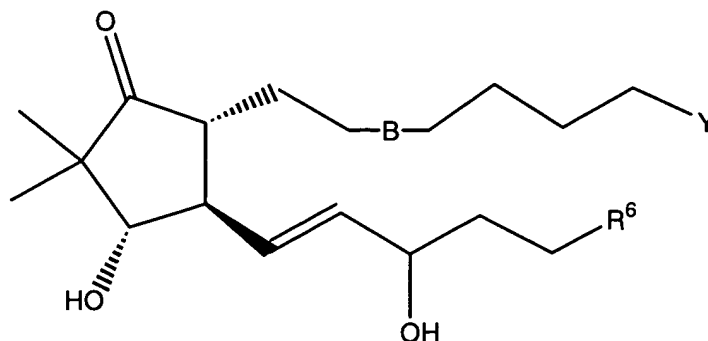
5. (Currently Amended) The compound of claim ~~48~~ 3 which is further represented by Formula III



Formula III

wherein Y is CO₂R, or any pharmaceutically acceptable salt of CO₂H.

- 5 6. (Currently Amended) The compound of claim ~~49~~ 5 wherein R⁶ is C₆₋₁₀ aryl or C₃₋₁₀ heteroaryl, wherein one or more carbons is substituted with N, O, or S; and which may contain one or more substituents selected from the group consisting of halogen, trihalomethyl, cyano, nitro, amino, hydroxy, C₁₋₆ alkyl, OR, SR, and SO₂R.
7. (Currently Amended) The compound of claim ~~20~~ 6 wherein R⁶ is naphthyl, benzofuranyl, or benzothienyl, which may contain one or more substituents selected from the group consisting of halogen, trihalomethyl, cyano, nitro, amino, hydroxy, C₁₋₆ alkyl, OR, SR, and SO₂R.
8. (Currently Amended) The compound of claim ~~24~~ 7 wherein Y is CO₂H or CO₂Me.
- 15 9. (Currently Amended) The compound of claim ~~22~~ 8 where R⁶ is 3-chlorobenzothien-2-yl.
10. (Currently Amended) The compound of claim ~~23~~ 9 where n is 2.
11. (Currently Amended) The compound of claim ~~24~~ 10 where B is a single bond.
12. (Currently Amended) The compound of claim ~~48~~ 3 which is further represented by Formula IV
- 20

**Formula IV**

wherein Y is CO₂R or any pharmaceutically acceptable salt of CO₂H; and

R⁶ is C₆₋₁₀ aryl or C₃₋₁₀ heteroaryl, wherein one or more carbons is substituted with N, O, or S; and which may contain one or more substituents selected from the group consisting of halogen, trihalomethyl, cyano, nitro, amino, hydroxy, C₁₋₆ alkyl, OR, SR, and SO₂R.

13. (Currently Amended) The compound of claim ~~26~~ 12 wherein Y is CO₂H or CO₂Me.

14. (Currently Amended) The compound of claim ~~27~~ 13 wherein R⁶ is phenyl.

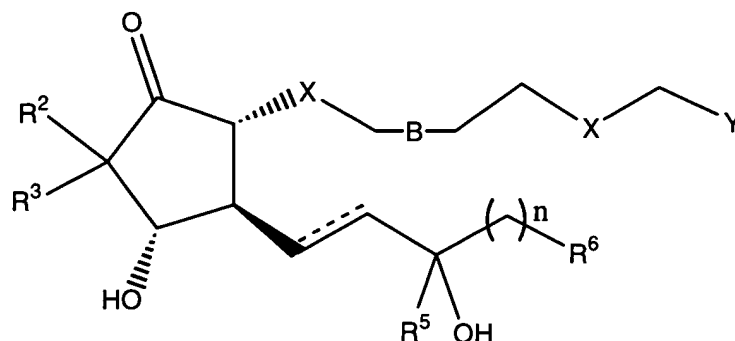
15. (Currently Amended) The compound of claim ~~28~~ 14 wherein B is a double bond.

16. (Currently Amended) The compound of claim ~~27~~ 13 wherein R⁶ is naphthyl, benzofuranyl, or benzothienyl, which may contain one or more substituents selected from the group consisting of halogen, trihalomethyl, cyano, nitro, amino, hydroxy, C₁₋₆ alkyl, OR, SR, and SO₂R.

17. (Currently Amended) The compound of claim ~~30~~ 16 wherein R⁶ is 3-chlorobenzothien-2-yl.

18. (Currently Amended) The compound of claim ~~34~~ 17 wherein B is a double or triple bond.

19. (Currently Amended) The compound of claim ~~48~~ 3 which is further represented by Formula V



Formula V

wherein at least one of R^2 and R^3 is not methyl.

20. (Currently Amended) The compound of claim 33 19 wherein R^2 and R^3 have a total number of carbon atoms of 6 or less.

5 21. (Currently Amended) The compound of claim 34 20 wherein R^5 is hydrogen.

22. (Currently Amended) The compound of claim 48 3 wherein said compound is selected from the group consisting of

(3-((1*R*,4*S*,5*S*)-5-(3-chloro-benzo[*b*]thiophen-2-yl)-3-hydroxy-pent-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentylsulfanyl)-propylsulfanyl)-acetic acid methyl ester (**21**,

10 **22**);

(3-((1*R*,4*S*,5*S*)-5-(3-chloro-benzo[*b*]thiophen-2-yl)-3-hydroxy-pent-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentylsulfanyl)-propylsulfanyl)-acetic acid (**23**, **24**);

(*Z*)-7-((1*R*,4*S*,5*R*)-5-[(*E*)-5-(3-chloro-benzo[*b*]thiophene-2-yl)-3-hydroxy-pent-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl)-hept-5-ynoic acid methyl ester (**34**, **35**);

15 (*Z*)-7-((1*R*,4*S*,5*R*)-5-[(*E*)-5-(3-chloro-benzo[*b*]thiophene-2-yl)-3-hydroxy-pent-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl)-hept-5-ynoic acid (**36**,**37**);

(*Z*)-7-((1*R*,4*S*,5*R*)-5-[(*E*)-5-(3-chloro-benzo[*b*]thiophene-2-yl)-3-hydroxy-pent-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl)-hept-5-enoic acid methyl ester (**38**,**39**);

(*Z*)-7-((1*R*,4*S*,5*R*)-5-[(*E*)-5-(3-chloro-benzo[*b*]thiophene-2-yl)-3-hydroxy-pent-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl)-hept-5-enoic acid (**40**,**41**);

20

(*Z*)-7-[(1*R*,4*S*,5*R*)-4-Hydroxy-5-[(*E*)-3-hydroxy-5-phenyl-pent-1-enyl]-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid methyl ester (**50**,**51**)

(Z)-7-[(1R,4S,5R)-4-Hydroxy-5-((E)-3-hydroxy-5-phenyl-pent-1-enyl)-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid (**52,53**)

(Z)-7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid (**54,55**)

5 7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-heptanoic acid (**56,57**)

(Z)-7-[(1R,4S,5R)-5-(4-Benzo[b]thiophen-2-yl-3-hydroxy-butyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid (**58,59**)

10 (Z)-7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid ethylamide (**60,61**)

(Z)-7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid diethylamide (**62,63**)

(Z)-7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid (2-hydroxy-ethyl)-amide (**64,65**)

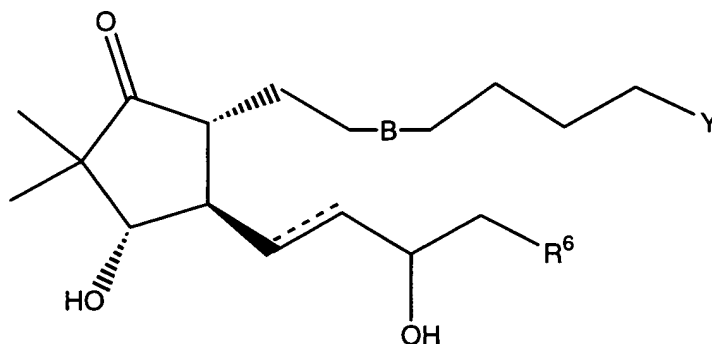
15 (3S,4R,5R)-4-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-3-hydroxy-2,2-dimethyl-5-[(Z)-6-(1-H-tetrazol-5-yl)-hex-2-enyl]-cyclopentanone (**66,67**) (Z)-7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid amide (**68,69**)

20 (Z)-7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid methyl ester (**70,71**)

7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-ynoic acid methyl ester (**72,73**)

7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-ynoic acid (**74,75**).

25 23. (Currently Amended) The compound of claim 18 3 which is further represented by Formula XIII

**Formula XIII**

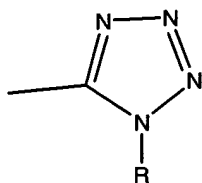
wherein B represents a single or double bond;

and R⁶ is naphthyl, benzofuranyl, or benzothienyl, which may contain one or more substituents selected from the group consisting of halogen, trihalomethyl, cyano, nitro, amino, hydroxy, C₁₋₆ alkyl, OR, SR, and SO₂R.

24. (Currently Amended) The compound of claim 47 23 wherein R⁶ is benzothien-2-yl.

25. (Currently Amended) The compound of claim 48 24 wherein Y is any pharmaceutically acceptable salt of CO₂H, or CO₂R, CONR₂, CONHCH₂CH₂OH,

10 CON(CH₂CH₂OH)₂, or



26. (Currently Amended) The compound of claim 49 25 wherein the dashed line indicates the presence of a bond and B is a double bond.

27. (Currently Amended) The compound of claim 49 25 wherein the dashed line indicates the presence of a bond and B is a single bond.

28. (Currently Amended) The compound of claim 49 25 wherein the dashed line indicates the absence of a bond and B is a double bond.